



# POP IN SOME LEARNING

THERE'S NOTHING MORE EXCITING THAN HEARING THE FIRST POP COME FROM THE MICROWAVE WHEN MAKING POPCORN. THIS STEM EXPERIMENT IS BASED AROUND THIS POPULAR SNACK!



**MATERIALS NEEDED:** 1 BAG OF POPCORN & A KITCHEN SCALE

## THE EXPERIMENT:

1. USE A KITCHEN SCALE TO RECORD THE WEIGHT OF THE UNPOPPED POPCORN.
2. PLACE THE BAG IN THE MICROWAVE AND COOK IT ACCORDING TO THE INSTRUCTIONS.
3. LET THE BAG COOL FOR A FEW MINUTES AND WEIGH IT AGAIN. **DO NOT OPEN THE BAG.**
4. OPEN THE BAG AND LET THE STEAM OUT. WEIGH THE BAG ONCE MORE.

UNPOPPED POPCORN WEIGHT	POPPED POPCORN WEIGHT WITH STEAM	POPPED POPCORN WEIGHT WITHOUT STEAM

## THE EXPERIMENT'S EXPLANATION:

THE LAW OF CONSERVATION OF MASS STATES THAT MASS IS NEITHER CREATED NOR DESTROYED IN A CHEMICAL REACTION. THIS MEANS THAT NO MATTER HOW THE MATERIALS CHANGE CHEMICALLY IF THE SYSTEM IS CLOSED THE WEIGHT WILL REMAIN THE SAME. IN THIS EXPERIMENT WAS THE POPCORN BAG A COMPLETELY CLOSED SYSTEM?

## POPCORN STEM CHALLENGES:

TRY ONE OF THESE POPCORN CHALLENGES. THEN WRITE ABOUT YOUR EXPERIENCE BELOW. IF YOU CAN, HAVE A PARENT TAKE A PHOTO AND SHARE WITH YOUR TEACHER!

1. CAN YOU DESIGN YOUR OWN PERSONALIZED POPCORN BUCKET?
2. CAN YOU CREATE YOUR OWN POPCORN RECIPE?
3. CAN YOU CREATE POPCORN JEWELRY?
4. CAN YOU CREATE A POPCORN SCULPTURE?
5. CAN YOU EXPAND A POPCORN KERNEL WITHOUT POPPING THE POPCORN?

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